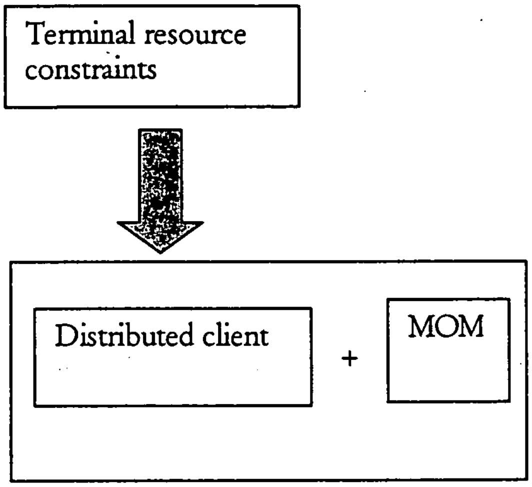
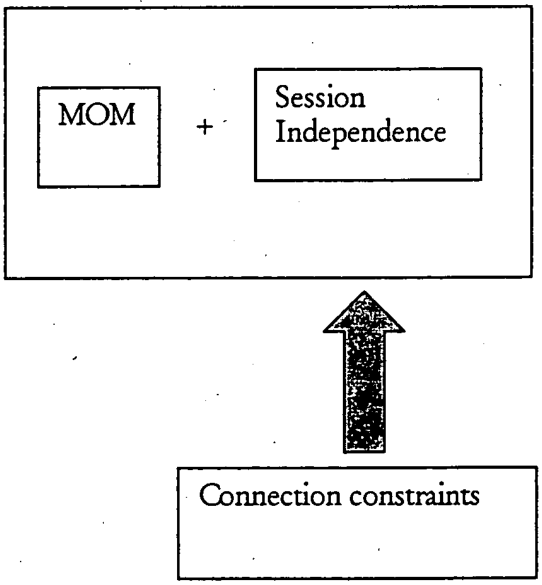


Terminal resource constraints are met in essence through the combination of a 'distributed client collaborating across a message queuing system, such as a MOM

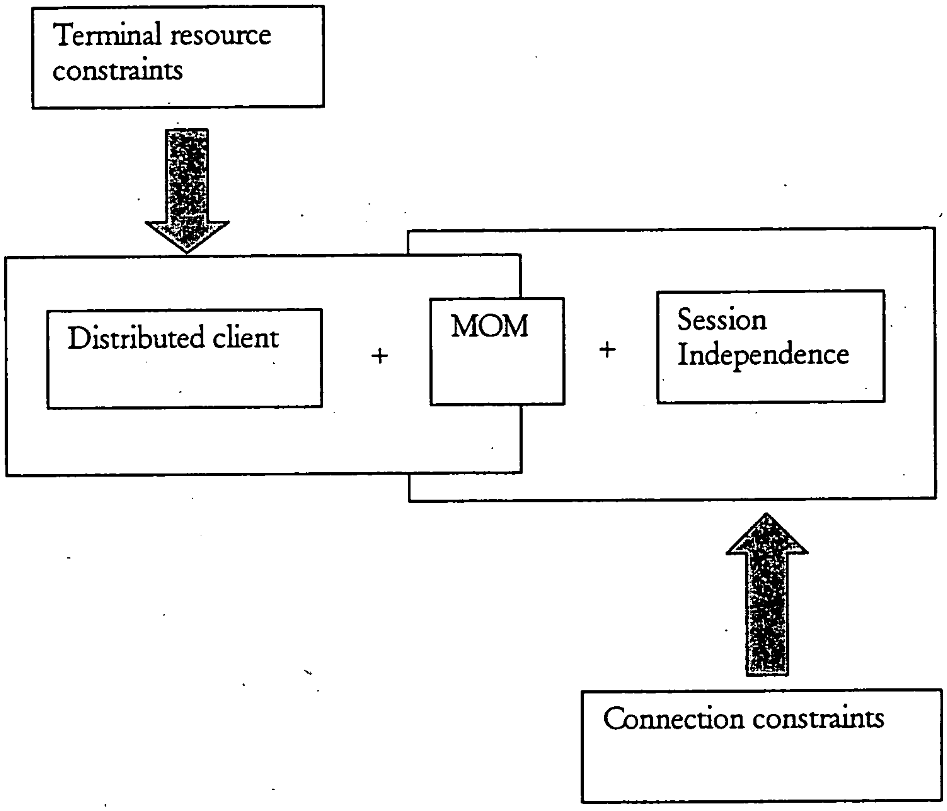
Figure 1



Connection constraints are met in essence through the combination of a message queuing system, such as a MOM, used by a platform operating in a 'session independent' manner

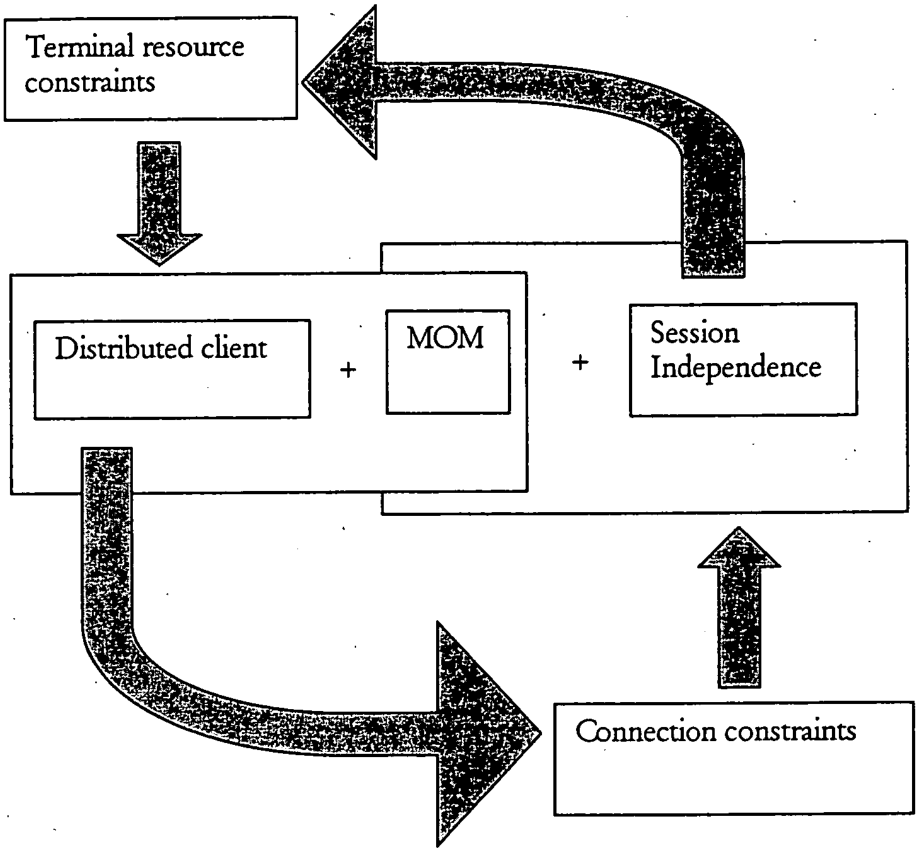
Figure 2

Figure 3



The Transcend Mail and MobileMQ systems address both terminal resource constraint as well as connection constraints

Figure 4



Event based data replication, arising through the distributed client solution, also addresses connection constraints and is inherently session independent.

Imposing session independence enables functions normally delivered in a session dependent manner than is not necessarily suitable for resource constrained devices to be deployed in a manner that is now fit for purpose. These functions include reliability of message delivery, sender authentication, message security, data rate flow control and packet routing.

Figure 5

A 'Distributed Client' model

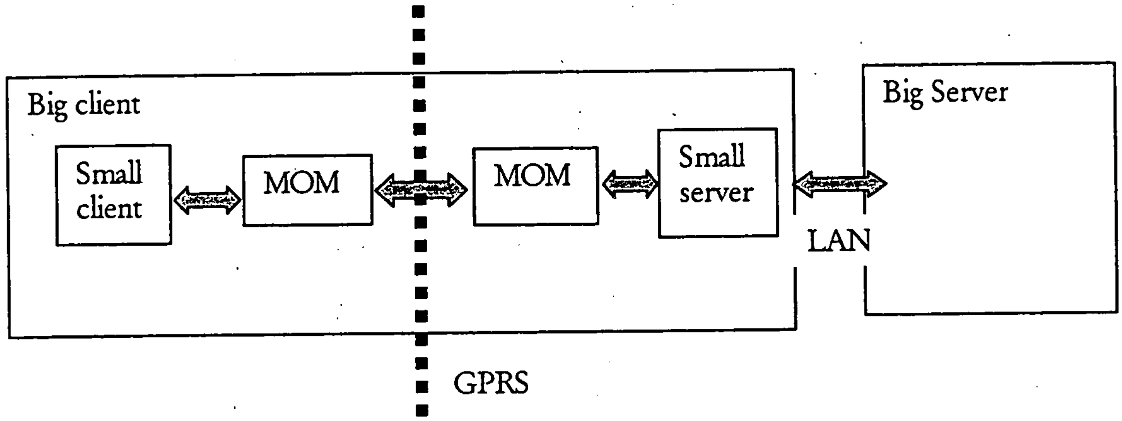


Figure 6

The Small Client can include a terminal-side component, plus the client side MOM; the Small Server can also include a server-side component, plus the server side MOM:

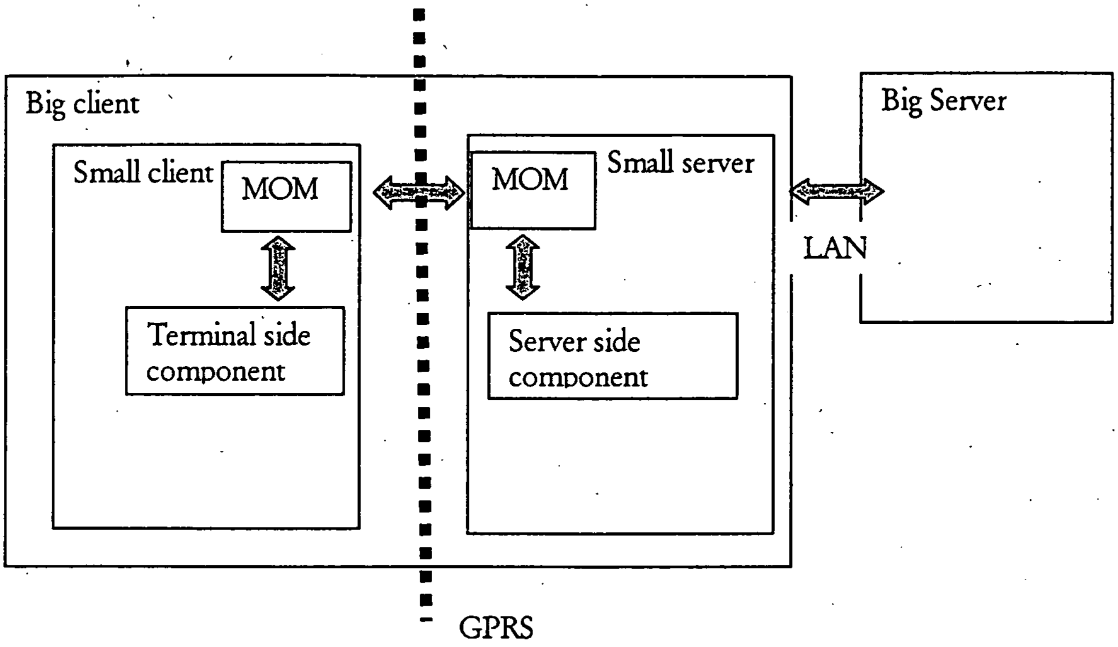


Figure 7

The Small Client can include a program – e.g. an e-mail application, plus plug-in linking it to the terminal-side component.

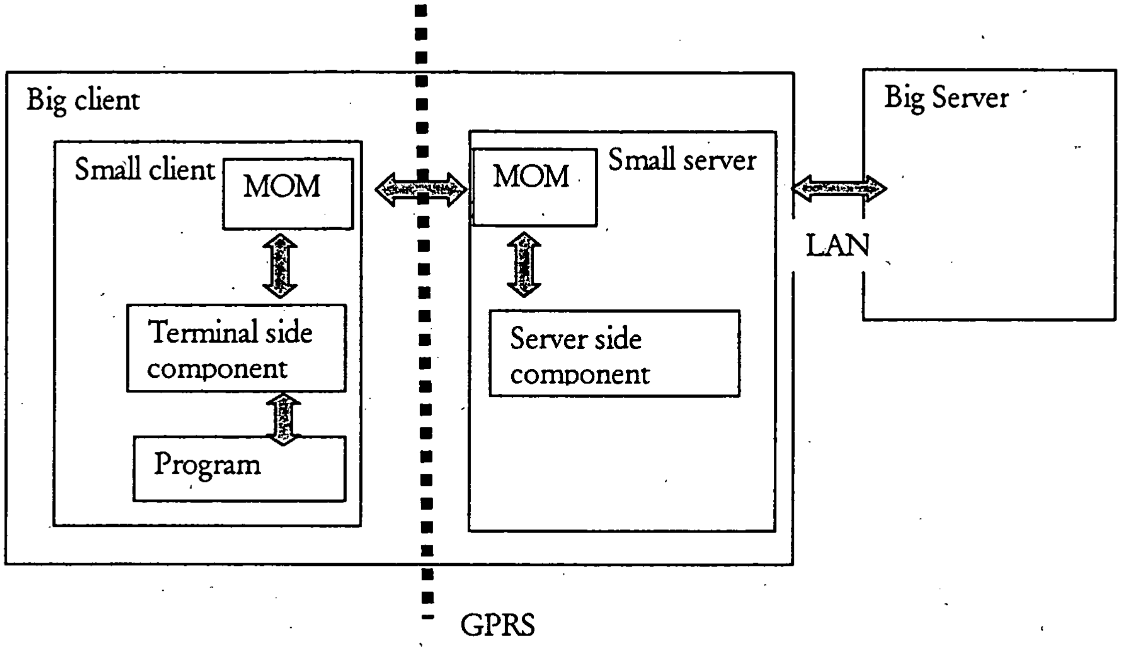


Figure 8

The Small Client can also exclude the program, e.g. a contacts program. The terminal side component then communicates with the contacts program via the contacts database (with event triggers from that database being sent to the terminal side component):

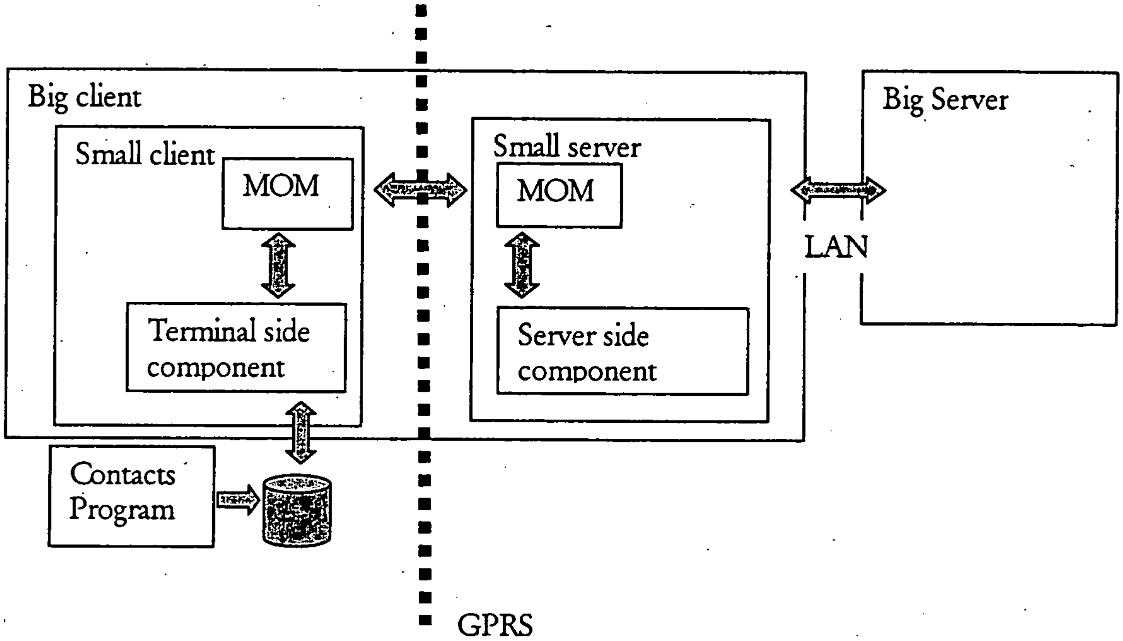
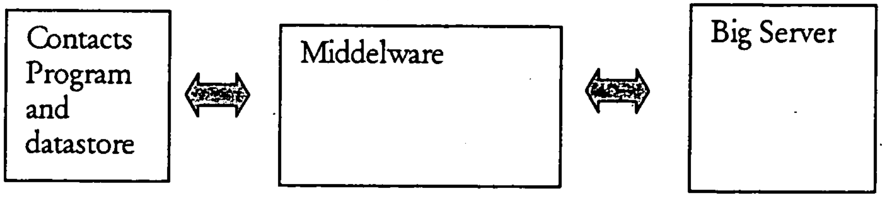


Figure 9

This is conceptually equivalent to the following middleware architecture:


Contacts Program and datastore
Middelware
Big Server